

**Sprague Energy  
Cumberland County  
South Portland, Maine  
A-179-71-I-M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #1**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

1. Sprague Energy of South Portland, Maine was issued Air Emission License A-179-71-D-R on 12/4/00, permitting the operation of emission sources associated with their bulk petroleum storage and distribution facility.
2. Sprague Energy has requested a minor revision to their license in order to replace a small boiler and address switchloading issues.

**B. Emission Equipment**

Sprague Energy is licensed to operate the following fuel burning equipment:

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate (gal/hr)</u></b>	<b><u>Fuel Type, % sulfur</u></b>	<b><u>Stack #</u></b>
Boiler #1	7.5	59.6	#2 fuel oil, 0.5%	1
Boiler #2	5.0	36.0	#2 fuel oil, 0.5%	2
Boiler #3	1.0	7.6	#2 fuel oil, 0.5%	3
Boiler #5*	2.0	14.4	#2 fuel oil, 0.5%	5

\*Boiler #5 is new to this license and replaces Boiler #4.

**C. Application Classification**

This amendment will not increase emissions. Therefore, this modification is determined to be a minor revision and has been processed as such.

## **II. BEST PRACTICAL TREATMENT (BPT)**

### **A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

### **B. Boiler #5**

Boiler #5 has a maximum heat input of 2.0 MMBtu/hr and is being installed to replace Boiler #4 (2.5 MMBtu/hr). Boiler #5 will be used for facility heating need.

Boiler #5 has a maximum heat input less than 10 MMBtu/hr and is therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BACT analysis for Boiler #5 (2.0 MMBtu/hr) is the following:

1. The total fuel use for the facility shall not exceed 500,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.5% by weight.
2. Chapter 106 regulates fuel sulfur content.
3. The PM and PM<sub>10</sub> limits are derived from Chapter 103.
4. NO<sub>x</sub> emission limits are based on data from similar #2 fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from Boiler #5 shall not exceed 20% opacity on a 6-minute block average.

### **C. Switchloading**

Condition (17)(D) of Air Emission License A-179-71-D-R requires that any truck which carried gasoline as the most recent previous load must utilize a vapor collection system during loading. Sprague has developed a Best Management Practices (BMP) policy that addresses this requirement. Sprague has proposed changes to their license that will formalize the strategy that has been developed to prevent switchloading.

D. Annual Emission Restrictions

Sprague Energy shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	7.0
PM <sub>10</sub>	7.0
SO <sub>2</sub>	17.5
NO <sub>x</sub>	12.3
CO	1.3
VOC	49.9

### III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

### ORDER

The Department hereby grants Air Emission License Minor Revision A-179-71-I-M, subject to the conditions found in Air Emission License A-179-71-D-R and in addition to the following conditions:

**The following shall replace Condition (16) of Air Emission License A-179-71-D-R:**

(16) Boilers

- A. Total fuel use for Boilers #1, #2, #3, and #5 shall not exceed 500,000 gal/yr of #2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight. Records of annual fuel use and sulfur content shall be kept on a 12-month rolling total basis.

B. Emissions shall not exceed the following:

Equipment		PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #1	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	1.50	1.50	3.80	2.70	0.30	0.08
Boiler #2	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	1.00	1.00	2.60	1.80	0.20	0.05
Boiler #3	lb/hr	0.20	0.20	0.51	0.36	0.04	0.01
Boiler #5	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.24	0.24	1.00	0.70	0.07	0.01

C. Visible emissions from Boiler #5 shall not exceed 20% opacity on a 6-minute block average basis.

D. Visible emissions from Boilers #1, #2, and #3 shall each not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

**The following are new Conditions:**

- (22) Sprague Energy shall develop, follow, and submit to the Department a Best Management Practice plan to prevent any tank truck which has carried gasoline as the most recent previous load from loading on racks that are not operated with vapor collection and control systems.
- (23) Sprague Energy shall include in their Best Management Practice plan a requirement to inspect the loading rack facilities for incidence of switchloading at a minimum of once per shift.
- (24) Sprague Energy may request exemption from Condition 17(D) of Air Emission License A-179-71-D-R and/or Condition (22) of this license when the Department determines that it is infeasible for Sprague Energy to follow the plan due to energy crisis, equipment outage, natural disasters, or other causes not reasonably within Sprague Energy's control and such request will not pose an unreasonable threat to the public health, safety, or environment.
- (25) Sprague Energy shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).

**(26) Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;  
or
- 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1.

- (27)** Sprague Energy shall pay the annual air emission license fee within 30 days of January 31<sup>st</sup> of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.

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(28) This amendment shall expire concurrently with Air Emission License A-179-71-D-R.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/18/02

Date of application acceptance: 10/21/02

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.